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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/691,547	10/24/2003	Yoshiyuki Sumitomo	103213-00060	7494

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EXAMINER

BRINSON, PATRICK F

ART UNIT PAPER NUMBER

3752

DATE MAILED: 08/20/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/691,547	Applicant(s) SUMITOMO, YOSHIYUKI	
	Examiner Patrick F. Brinson	Art Unit 3752	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-10 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|--|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date ____ | 6) <input type="checkbox"/> Other: ____ |

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

Claims 1 and 2 are rejected under 35 U.S.C. 102(e) as being anticipated by U.S. Patent Application Publication # 2004/0123914 to **Chih**.

The **Chih** reference discloses a hose, fig. 2, having a hose body of which a cross-sectional external shape as seen in a plane perpendicular to an axial direction is substantially rectangular and having a linear projection (92) formed on an inner wall of the hose body along the axial direction, as recited in claim 1. The height of the

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projection is at least 50% of the distance from a part of the inner wall on which it is formed to the opposite inner wall, as recited in claim 2.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-3 and 5-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent Application Publication #2004/0123914 to **Chih**.

The **Chih** reference discloses a hose, figs. 5-7, having a hose body of which a cross-sectional external shape as seen in a plane perpendicular to an axial direction is substantially an elongated oval shape, having at least one linear projection (14) formed on an inner wall of the hose body along the axial direction. The height of the projection is at least 50% of the distance from a part of the inner wall on which the linear projection is formed to a part of the inner wall opposite to the linear projection as recited in claim 2. The projections have flat surfaces at the top portions, as recited in claim 3. The gap between the top of the projection and the inner wall opposite to the projection is in the range of 5 to 30%, more specifically within the range of 10 to

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28%, as recited in claims 5 and 6. The embodiment of fig. 13 discloses two linear projections formed on opposite parts of the inner wall in such a way that the tops of the linear projections point toward each other, as recited in claim 7. The sum of heights of the opposite linear projections is at least 50% of a distance between parts of the inner wall on which the projections are formed, as recited in claim 8. The gaps between the tops of opposing projections appear to be within the range of 5 to 30%, more specifically, in the range of 10 to 28%, as recited in claims 9 and 10. The **Chih** reference discloses all of the recited structure in the embodiments including projections having tops, with the exception of the hose itself having a substantially rectangular cross-section. At the time the invention was made, it would have been an obvious matter of design choice to a person of ordinary skill in the art to form the hose in with a substantially rectangular cross section because Applicant has not disclosed that this design provides an advantage, is used for a particular purpose, or solves a stated problem. One of ordinary skill in the art, furthermore, would have expected Applicant's invention to perform equally well with an oval or circular cross-section to ergonomically fit a user's hand while preventing blockage of fluid there through due to external force. Therefore, it would have been an obvious matter of design choice to modify the embodiment of figs. 5-7 and 13 to obtain the invention as specified in claims 1. Furthermore, **Chih** does disclose that it is old and known in the art to provide a hose having a substantially rectangular cross-section with continuous

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projections to prevent fluid flowing there through from being blocked upon the bending of the hose. It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the embodiments of **Chih** having non-continuous projections to have a substantially rectangular cross-section, wherein it is shown that to manufacture a tube of such configuration is old and known in the art.

3. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over **Chih** in view of US 4,867,485 to **Seckel**.

The patent to **Chih** discloses the recited structure, as discussed in preceding paragraph #2, but does not disclose the projections as having a cross-sectional shape being trapezoidal. The patent to **Seckel** '485 discloses a kink resistant hose, figs. 3, 4A and 6, also including projections (20) that are have a cross-section of a trapezoidal shape. It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the projections of the **Chih** tube to be of a trapezoidal cross-section, as suggested by **Seckel** wherein it is known to provide the projections with a trapezoidal, triangular, top rounded or any specific cross-section so long as the projection functions to keep the fluid passage inside the hose open even under an external force.

Conclusion

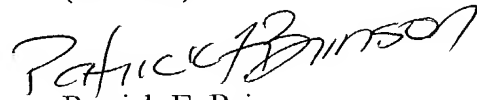
4. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The patents to Lefrancois, Seckel '925, Calvet, Corrison et al., Morris, Lo et al., Zeman, Tamari, Russo et al., Knoll, Duncan, Schroeder, Batdorf et al., McFarlane, Schrock, Mauch, Shibata et al., Larkin, Morey, and Russo are all pertinent to Applicant's invention in disclosing hoses including projections that extend from an inner wall surface to prevent the blockage of fluid in the hose due to external pressures.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to **Patrick F. Brinson** whose telephone number is (703) 308-0111. The examiner can normally be reached on M-F 7:30-3:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, **Michael Y. Mar** can be reached on (703) 308-2087. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Patrick F. Brinson
Primary Examiner
Art Unit 3752

P. F. Brinson
August 19, 2004